

Figure 1

Genewriter - Oligonucleotide Pooling Plan

	F-A1		F-A	2		F-A	3.		F-A	4		F-A	5	••
• 00		R-A1			R-A2			R-A3		F	R-A4		R	-A5
		1	2	3	4	5	6	7	8	9	10	11	12	
	A B C	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	**
	D E F G	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	*
	H	0	$\frac{O}{a}$			$\frac{O}{C}$	$\frac{\circ}{\circ}$		$\frac{\circ}{\circ}$	$\frac{\bigcirc}{}$	$\overline{}$	$\overline{\bigcirc}$		
		1	2	3	4	5	6	7	8	9	10	11	12	
× .	A B C D E F G H	Ŏ	\bigcirc		00000000	\bigcirc	\bigcirc	\bigcirc		\bigcirc				

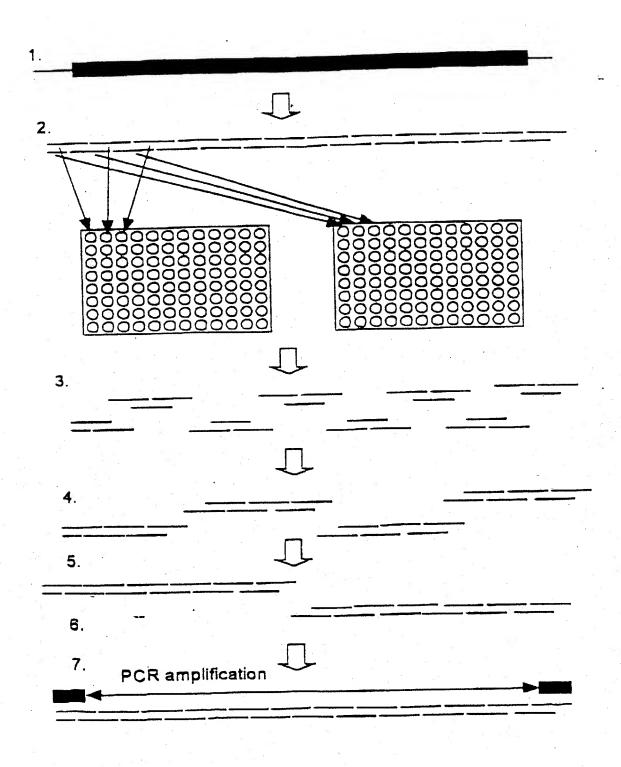


Figure 3

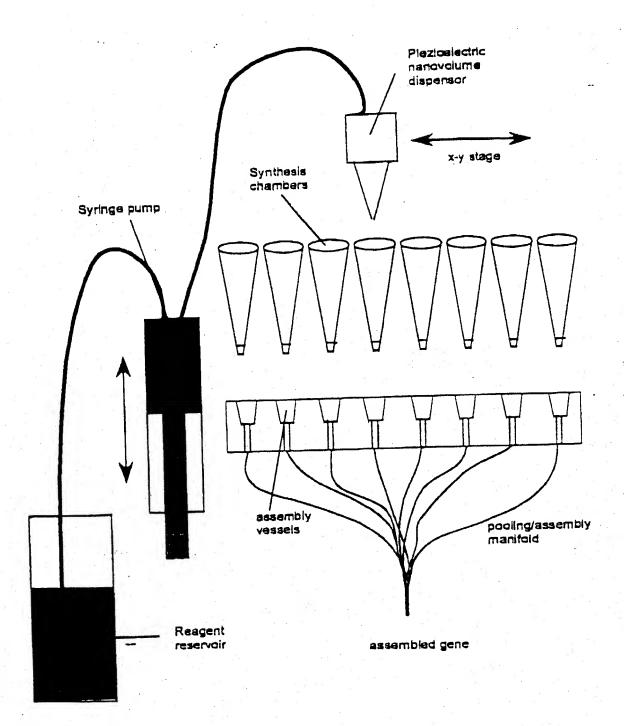


Figure 4

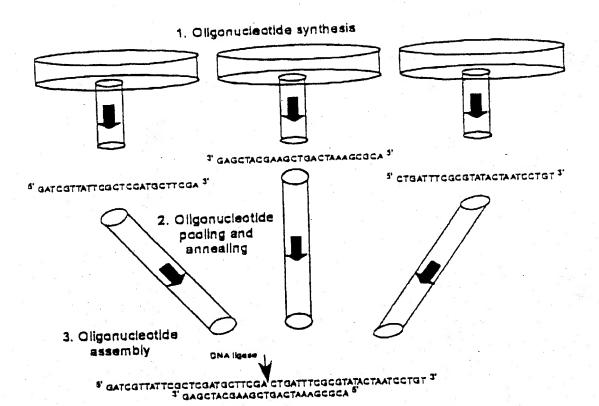


Figure 5

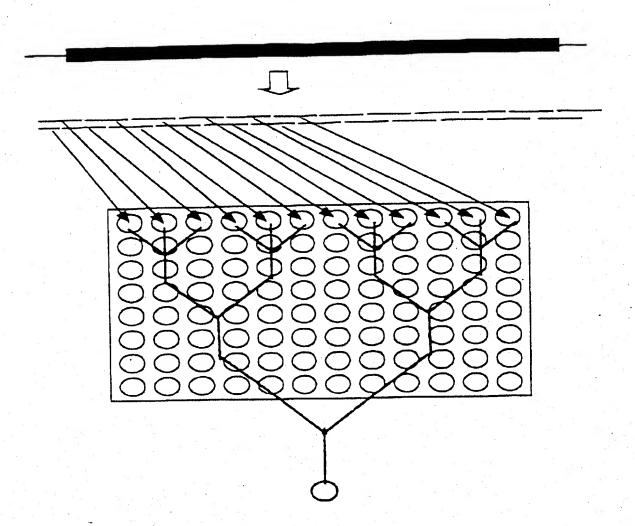
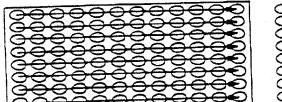


Figure 6



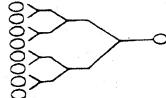


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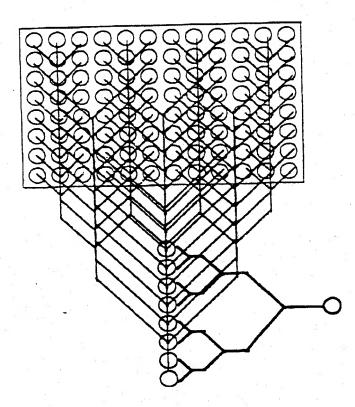


Figure 8

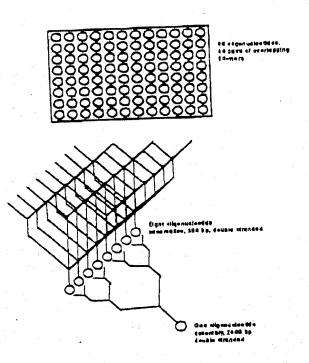


Figure 9

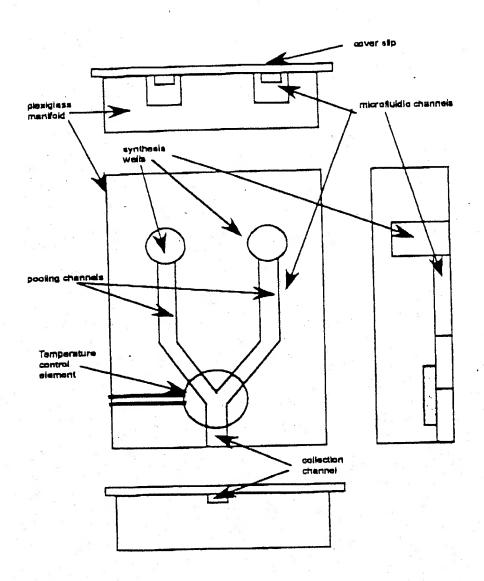
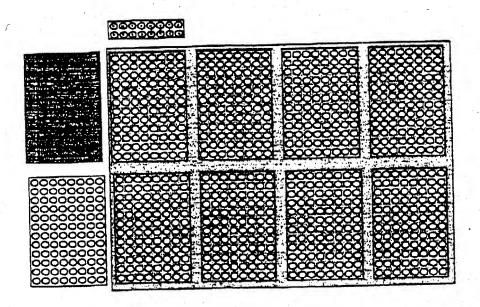


Figure 10

Genewriter Platform Design 8 x 96 well plates addressed with 16 piezioelectric nanovolume dispense heads; One wash/dry station and one additional plate station. 8 plate evacuated by a single vacuum station.

Capacity of 8 x 95 = 788 oligos/run



Genewriter Platform Design - High Capacity Mode 8 x 1536 well microssedy plates addressed with 16 plazipolectric nanovolume dispense heads; One wash/dry station and one additional plate station. 18 plates evacuated by a single vacuum station.

Capacity of 8 x 1636 = 12,256 oligos/run

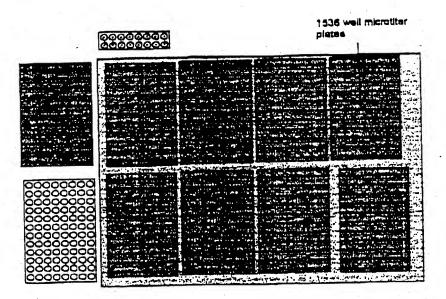
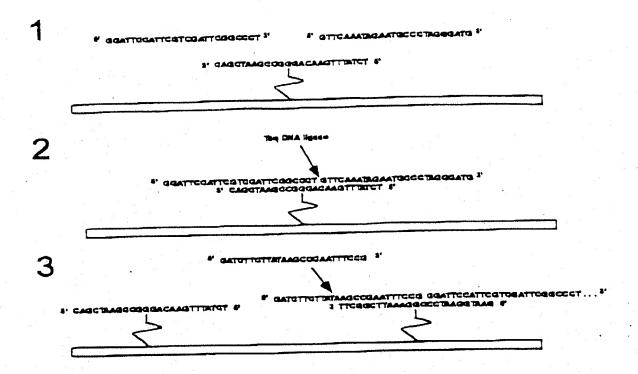


Figure 12



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Figure 13



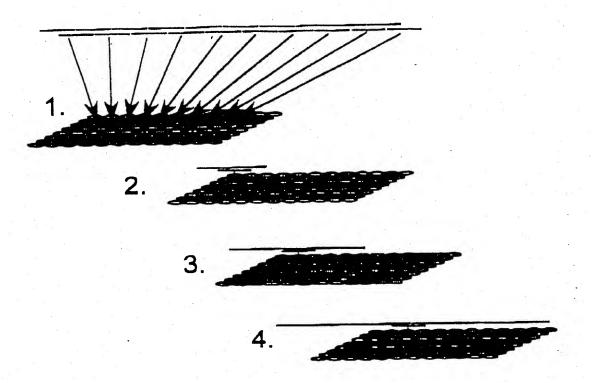
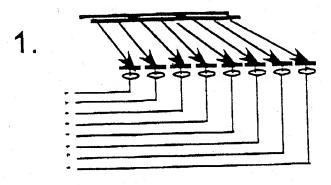
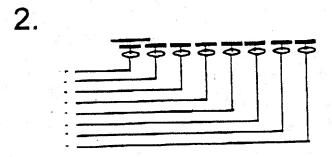


Figure 14





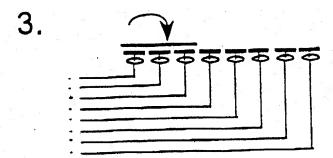


Figure 15

Bidirectional primer extension strategy for gene assembly

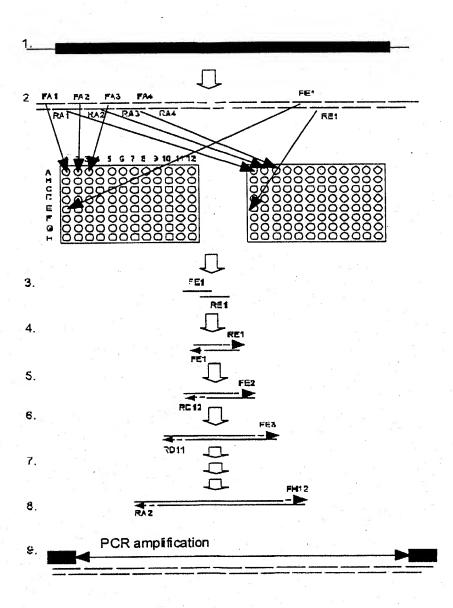


Figure 16

System Diagram for Genewriter

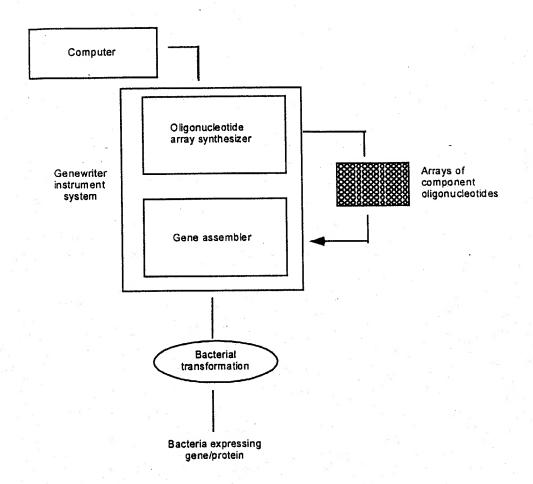


Figure 17

Perspective view of Genewriter Instrument

Genewriter diagram

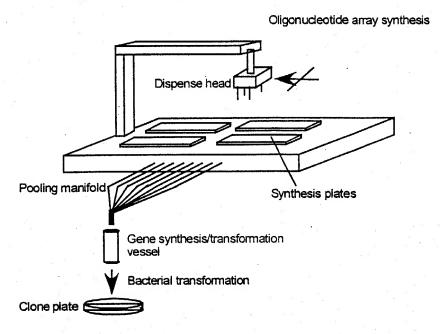
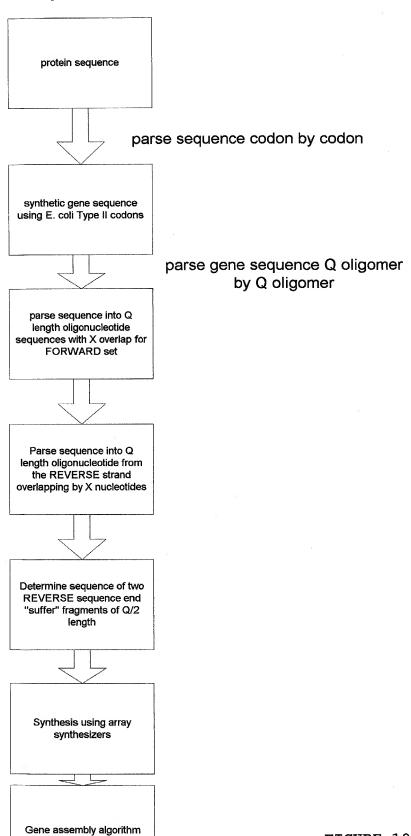


Figure 18

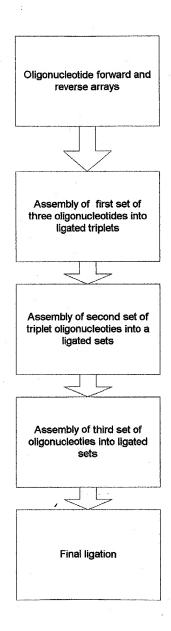
Generation of self-assembling oligonucleotide arrays

Option 1

Inventor: Glen A. Evans Atty Docket No.: P-EA 4854



Assembly of Self assembling oligonucleotide arrays Option 1



Generation of self-assembling organic leotide arrays

Inventor: Glen A. Evans
Atty Docket No.: P-EA 4854

